

REMARKS

By this amendment, Applicants have amended claim 1 by adding the feature “wherein the actual quantity of coating suspension is determined by weighing each body before and after coating and comparing the results“. Support for this amendment is disclosed on page 7, lines 24 to 26 of the application. The phrase “by re-suction” has been deleted from claim 1. Claim 2 was clarified by inserting the phrase “the sequence of”. Claim 3 was clarified by inserting the phrase “either an intensity, a duration or both intensity and duration”. Claims 4 and 5 have been clarified by deletion of “and/or” while adding the expression “or both”. Claim 6 has been amended to include the feature “removal of still wet coating suspension is effected by re-suction or blowing with compressed air” disclosed on page 6, lines 18 to 20 of the application. In claim 8, the expression “re-suction is performed from the second end of the body” was replaced by page 9, lines 21-22 “suction is applied to mutually opposite ends of the carrier“. Claims 9 and 10 have been amended to recite further features of their respective independent claims. These amendments do not add new matter. Applicants respectfully request entry of these amendments and allowance of the pending claims.

1. Claim Objections

Claim 9 is objected to because it recited the “differ-enc” and claims 9 and 10 do not further limit independent claim 1. In response, Applicants have amended claim 9 to correct the typographical error and have amended claims 9 and 10 to further limit claim 1. Therefore, these objections are now moot.

2. Rejections Under 35 U.S.C. § 112 Second Paragraph

Claims 1-10 are rejected under 35 U.S.C. 112, second paragraph, as allegedly being indefinite for various indefinite phrases. In response, in order to advance prosecution, Applicants have amended the claims to remove these alleged indefinite phrases. Therefore, these rejections are now moot.

3. Rejection under 35 U.S.C. §102(b)

Claims 1-3 are rejected under 35 U.S.C. 102(b) as allegedly being anticipated by US Patent Publication No. 2003/0044250 (Kiessling). Applicants respectfully traverse this rejection.

The claims have been amended to include a method in which the charge of each carrier with coating is initially applied in excess, the exact amount is determined by weighing before and after coating and is being corrected in an additional step by removing coating by an additional suction step, if a limit is exceeded. The effect of the correction may be monitored by further weighing steps and further correction by an additional suction step. In this way quite narrow tolerances can be met.

Kiessling does not disclose the current claims. Kiessling merely teaches a coating method allowing adjustment of coating conditions once in the beginning and then applying the same process conditions to all carriers to be coated, without any possibility of determining the controlled variable in each case and to converge them to the command variable. Kiessling thus merely teaches an open-loop control. In contrast to Kiessling, the present application relates to a closed-loop control that keeps track of the controlled variable by weighing, the controlled variable is compared to the command variable (the desired amount of coating) and is influenced in order to achieve an adjustment to the command variable (by an additional suction step). Accordingly, Kiessling does not anticipate the current claims and Applicants respectfully request withdrawal of this rejection.

4. Rejection under 35 U.S.C. §103(a)

Claim 4 is rejected under 35 U.S.C. 103(a) as allegedly being unpatentable over Kiessling and U.S. Patent No. 6,487,869 (Sulc). Claim 5 is rejected under 35 U.S.C. 103(a) as allegedly being unpatentable over Kiessling in view of Sulc and U.S. Patent No. 6,594,542 (Williams). Claims 6 and 9 are rejected under 35 U.S.C. 103(a) as allegedly being unpatentable over Kiessling and U.S. Patent No. 3,959,520 (Hoyer). Claims 7, 8, and 10 are rejected under 35 U.S.C. 103(a) as allegedly being unpatentable

over Kiessling in view of Hoyer and US 2001/0024686 (Kiessling B). Applicants respectfully traverse these rejections.

The claims have been amended to include a method in which the charge of each carrier with coating is initially applied in excess, the exact amount is determined by weighing before and after coating and is being corrected in an additional step by removing coating by an additional suction step, if a limit is exceeded. The effect of the correction may be monitored by further weighing steps and further correction by an additional suction step. In this way quite narrow tolerances can be met. Applicants respectfully submit that none of the prior art references make obvious, among other things, these features.

Kiessling is not in the same technical field as the current claims and one skilled in the art would not refer to it as the Examiner does. The problem solved by the current application is to provide a method allowing reduction in the production tolerance of coated carriers with regard to the amount of coating. The distinguishing feature is the introduction of a closed control loop, wherein each single carrier is provided with an excess amount of coating and is weighed before and after coating and wherein excess coating is removed afterwards. This feature has the technical effect to allow producing a series of coated carriers with a diminished deviation of coating present on the coated carriers, see Fig. 2 of the specification, and consequently the objective problem is solved. This feature is not made obvious by Kiessling alone or in combination with Sulc, Williams, Hoyer and/or Kiessling B.

Sulc is related to a method to control compressors in transport cooling devices, but not controlling the amounts of coating on an open pored carrier. It is noted that prior to the patent application it was believed in the art that once a fluid coating composition is applied to a ceramic carrier by pumping in and pumping out or sucking out, the coating fluid would quickly solidify and the solids in the suspension would accumulate at the surface of the walls within the flow channels of the ceramic carrier and applying suction would merely dry the coating, which is indeed the case for an increased number of repeated suction steps, see page 9, paragraph 5 of the specification. In contrast to this,

Sulc is a remote art and due to the added technical feature in claim 1 that is neither disclosed in Sulc nor Kiessling, the combination of features does not render obvious claim 4. The same arguments hold for the combinations of Kiessling with Williams.

Further, a combination of Kiessling with Hoyer does not make the current claims obvious. Hoyer employs weighing to determine deviations from the desired amount of coating applied to the carrier shows no remedy other than separating the off-specification coated carriers (see Hoyer, column 8, lines 24 to 40). In addition, the equipment for coating disclosed in Hoyer is not suitable to perform the method according to the invention. The apparatus according to Hoyer does not show any means for removal of excess coating. Merely a drying step with an airflow by a nozzle is disclosed (Fig. 1, 21 and 22 with column 8, lines 40 to 45). This procedure is intended to remove fluid drops from the flow channels which would block them. Despite weighing the carrier bodies, no control of the coating amount for each carrier is possible. The values determined by weighing are merely used to sort out off-spec carriers via “element removal means” (17) (column 8, lines 24 to 40). It is correct that this will improve sample uniformity, but instead of correcting and using the off-spec coated carriers as in the current application, this is not the case in Hoyer. In this respect it is to be noted that the current application is not related to removing blockages of coating solution from the flow channels, which is not to be seen as “excess”, but rather a fault that occasionally happens. For the removal of such blockages, no weighing is required and neither in Kiessling nor Hoyer weighing is related to the removal of blockages.

Applicants respectfully submit that one of ordinary skill in the art would not combine the references (Kiessling, Sulc, Williams, Hoyer, and/or Kiessling B) in the way the Examiner does. Even if one of ordinary skill in the art was to combine the references one still does not obtain the present claims. Accordingly, Applicants respectfully submit that the claims cannot be considered obvious over any of the cited references alone or in combination and request that the rejections under 35 U.S.C. §103(a) be reconsidered and withdrawn.

5. Provisional Double Patenting Rejection

Claims 1-10 are provisionally rejected on the grounds of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-12 of copending Application No. 11/665,591. Applicants respectfully disagree and submit that the newly amended claims are not obvious and request that the Examiner reconsider this rejection in light of the amendments made to the claims.

6. Conclusion

Reconsideration and allowance are respectfully requested. Applicants hereby request a one-month extension of time under 37 CFR 1.136(a).

No additional fee is believed to be due with respect to filing this response. If any additional fees are due, or an overpayment has been made, please charge, or credit, our Deposit Account No. 11-0171 for such sum.

If the Examiner has any questions regarding the present application, the Examiner is cordially invited to contact Applicants' attorney at the telephone number provided below.

Respectfully submitted,

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